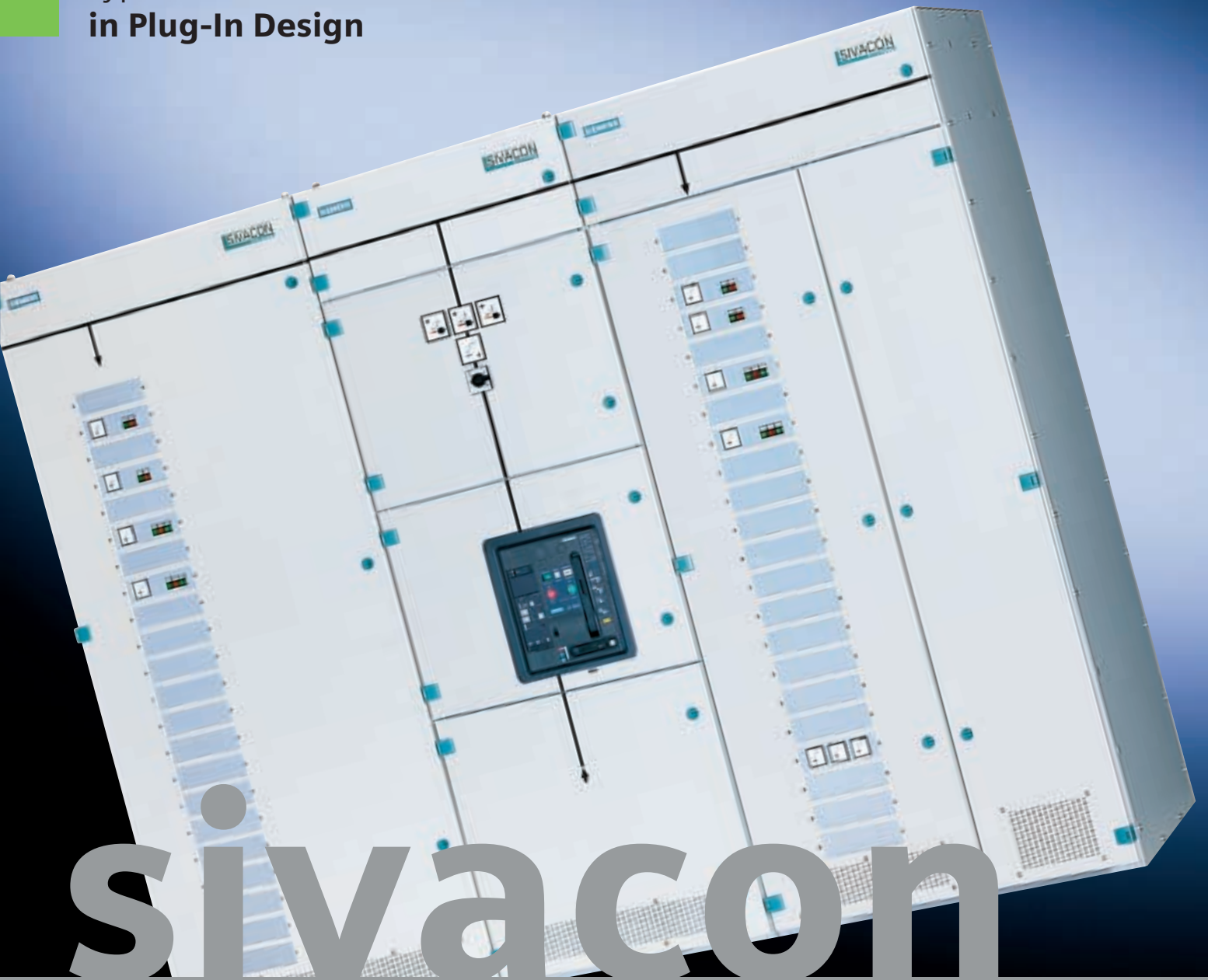


Type-Tested Motor-Control-Center 8PT  
in Plug-In Design



sivacon



# Versatile with Safety:

## Type-Tested Components for Motor-Control-Center in Plug-In Design

### SIVACON Features

- Type-tested standard modules (TTA)
- Standardized busbar position at the top of the cubicle
- 3- und 4-pole busbar system up to 7400 A
- Rated peak withstand current  $I_{pk}$  up to 375 kA
- Deep switchgear compartment for universal installation
- Modular structure of device compartments
- Single-front and back-to-back installation
- Cable lead-in from above or below
- Cable connection from the front or rear



The SIVACON low-voltage switchboard featuring plug-in design is an efficient standard solution for motor control centers. This version has clear advantages over the conventional fixed-mounted design and is particularly suitable for the chemical industry and other applications such as sewage treatment plants, waterworks etc.

- Ease of replacement without operating interruption
  - Clear and compact design
- As a Motor-Control-Center, SIVACON is available throughout the world and can be used at all power levels up to 7400 A.

- Safety and proven quality for every system by type testing
- Siemens switchgear for reliable operation
- Worldwide presence with local production
- High flexibility for economical solutions

### Your advantage: "SIVACON Technology Partners"

These are qualified and permanently audited switch board panel manufacturers, which Siemens has selected, close to you. This means that you always have the wealth of Siemens know-how at conditions that only a local supplier can offer. Fast, flexible and favorably priced.

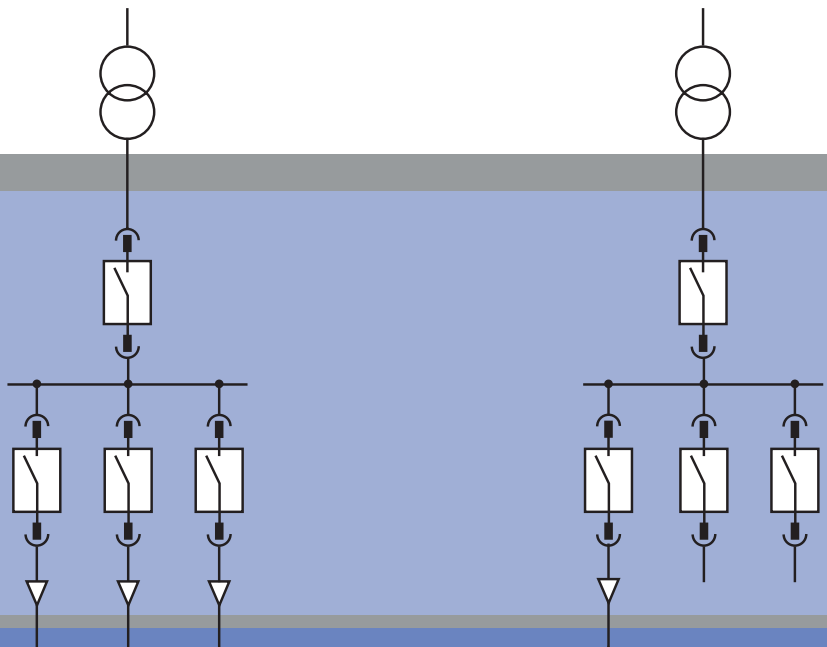


Motor-Control-Center  
SIVACON in Plug-In Design

SIVACON  
for all applications  
in the low-voltage  
network

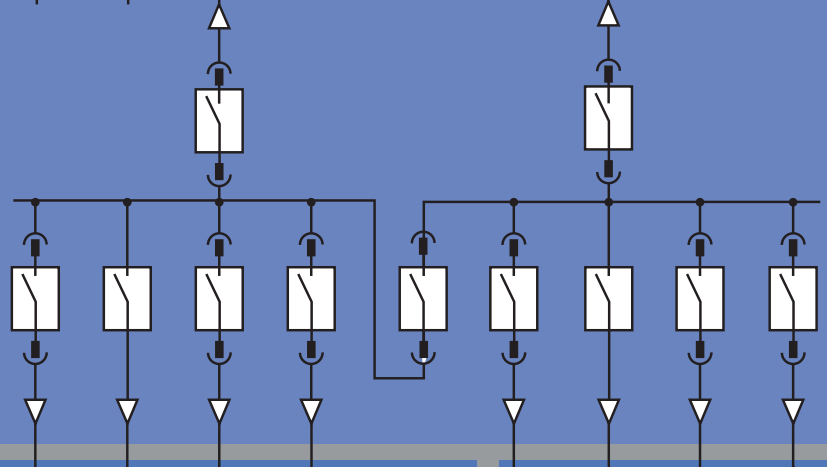
**Power Center**

$I_n$  up to 7400 A  
 $I_{cw}$  up to 150 kA  
 $I_{pk}$  up to 375 kA



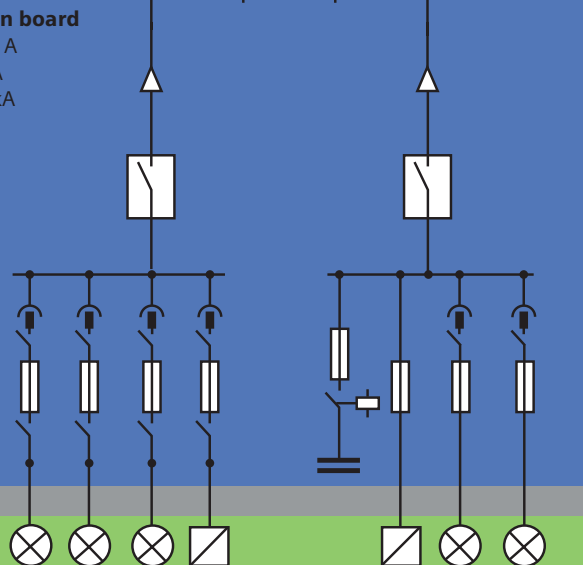
**Main Distribution board**

$I_n$  up to 4000 A  
 $I_{cw}$  up to 100 kA  
 $I_{pk}$  up to 250 kA



**Subdistribution board**

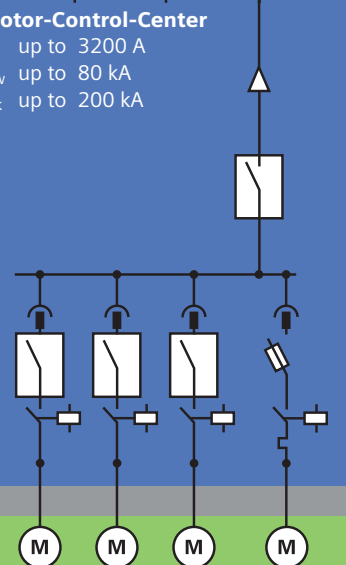
$I_n$  up to 3200 A  
 $I_{cw}$  up to 80 kA  
 $I_{pk}$  up to 200 kA



**Loads**

**Motor-Control-Center**

$I_n$  up to 3200 A  
 $I_{cw}$  up to 80 kA  
 $I_{pk}$  up to 200 kA



## Plug-In Design: Plugged in Swiftly, Always Safe

The cubicles for motor and cable feeders in plug-in design are an efficient alternative to withdrawable-unit design.

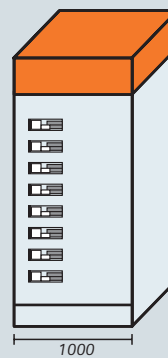
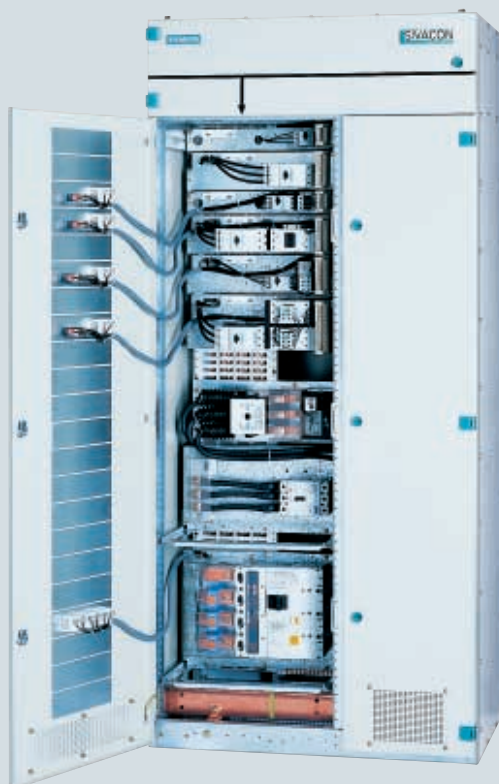
By virtue of the supply-side plug in contacts, the units provide the facility for quick interchangeability, without the switchboard having to be isolated. The SIVACON Plug-In design ensures excellent economy, reliability and versatility.

- High level of safety by virtue of type-tested standard modules (TTA)
- Supply-side plug-in contacts enable quick replacement
- Motor feeders up to 250 kW
- Outgoing cable feeders up to 630 A

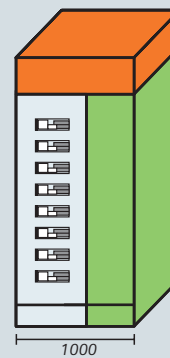
- Non-fused or fused protection
- High packing density (up to 22 feeders per cubicle)
- Protection against electric shock from plug-on bus system (optional)
- Lateral guides to ensure positive contact
- 400 mm wide cable connection compartment
- Control panel in the door (optional)
- Mounting plates for additional control devices
- Replacement of a feeder without switching off the switchboard

### Cubicle Dimensions/Cubicle Structure

Plug-in modules up to 630 A/feeder  
Cable connection right-hand side

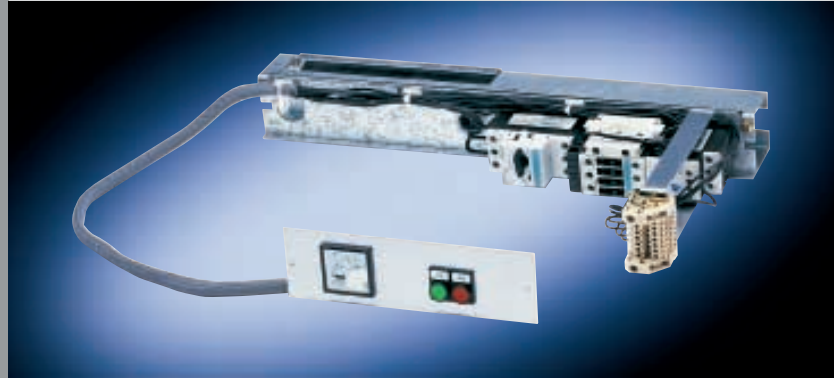


without separate  
cable compartment door

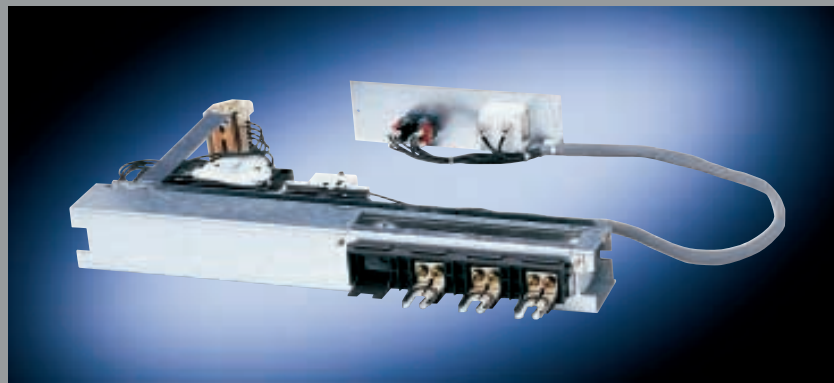


with separate  
cable compartment door

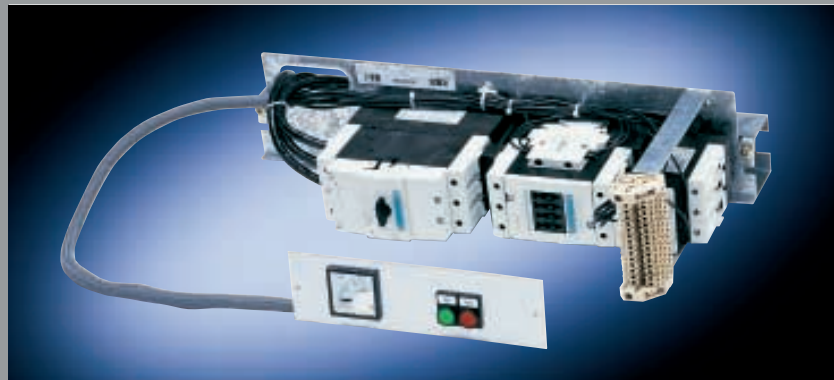
Plug-in unit  
module height 75 mm  
11 kW with direct contactor  
non-fused



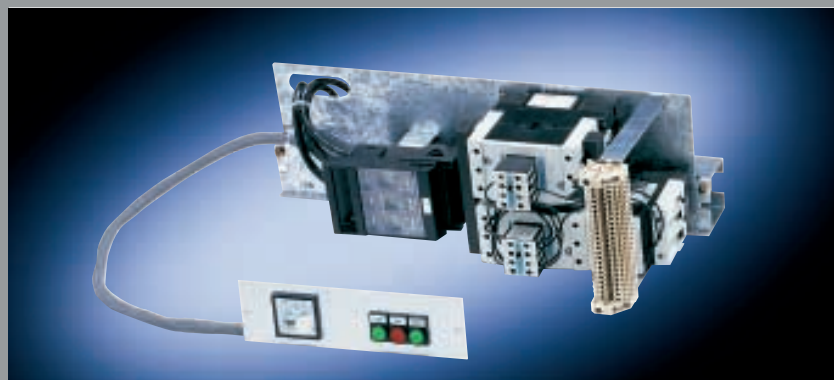
Plug-in unit – rear view  
contact system



Plug-in unit  
module height 125 mm  
45 kW with direct contactor  
non-fused



Plug-in unit  
module height 175 mm  
45 kW with reversing contactor  
fused



### Plug-on bus system

The plug-on bus system is located at the rear of the cubicle. It offers safe-to-touch protection without additional shutters to live parts.

- Integrated protection against electric shock (optional)
- 3- and 4-pole versions
- Safe-to-touch (IP 20 B)
- Tap openings in a modular grid of 25 mm

### Cable connection

- External power cable connection direct at the switching device
- Control circuits at terminals
- 400 mm wide cable connection compartment



Cable connection



Plug-on bus system  
Guide rails (short and long)  
on the left- and right-hand sides  
of the cubicle

# Technical Data – At a Glance

Standards and specifications	Type-tested switchgear and control gear assembly (TTA) Testing of response to internal faults (arcing faults)	IEC 60439-1, DIN EN 60439-1 (VDE 0660 part 500) IEC 61641, VDE 0660 part 500, supplement 2	
<b>Creepage distances and clearances</b>	Rated impulse withstand voltage ( $U_{imp}$ )	8 kV	
	Overtoltage category	III	
	Pollution degree	3	
<b>Rated insulation-voltage (<math>U_i</math>)</b>		1000 V	
<b>Rated operational-voltage (<math>U_e</math>)</b>		up to 690 V	
<b>Rated currents (<math>I_n</math>) Busbars (3-pole and 4-pole)</b>	Main horizontal busbars	Rated current	up to 7400 A
		Rated peak withstand current ( $I_{pk}$ )	up to 375 kA
		Rated short-time withstand current ( $I_{cw}$ )	up to 150 kA, 1 s
			up to 120 kA, 3 s
	Vertical busbars for circuit-breakers	Rated current	up to 6300 A
		Rated peak withstand current ( $I_{pk}$ )	up to 250 kA
Rated short-time withstand current ( $I_{cw}$ )		up to 100 kA, 1 s up to 80 kA, 3 s	
Vertical busbars for fixed-mounted design	Rated current	up to 1400 A	
	Rated peak withstand current ( $I_{pk}$ )	up to 163 kA	
	Rated short-time withstand current ( $I_{cw}$ )	up to 65 kA*, 1 s up to 50 kA, 3 s	
Vertical busbars for in-line plug-in design (3NJ6)	Rated current	up to 2100 A	
	Rated peak withstand current ( $I_{pk}$ )	up to 110 kA	
	Rated short-time withstand current ( $I_{cw}$ )	up to 50 kA*, 1 s	
Vertical busbars for plug-in design	Rated current	up to 1200 A	
	Rated peak withstand current ( $I_{pk}$ )	up to 163 kA	
	Rated short-time withstand current ( $I_{cw}$ )	up to 65 kA*, 1 s	
		up to 50 kA, 3 s	
<b>Switchgear rated currents</b>	Circuit breakers	up to 6300 A	
	Outgoing feeders	up to 630 A	
<b>Internal separation</b>	Form 1 to Form 4	IEC 60439-1, Section 7.7, DIN EN 60439-1	
<b>Surface treatment</b>	Frame parts	Galvanized/powder-coated/wet painted	
	Enclosure	Galvanized/powder-coated/wet painted	
	Doors	Powder-coated/wet painted	
<b>Degree of protection</b>	to IEC 60529, EN 60529	IP 30 to IP 54	
<b>Dimensions</b>		Height: 2200, 2600 mm (with busbar top unit) Width: 400, 600, 800, 1000, 1200 mm Depth: 600, 800, 1000, 1200 mm	

\* Rated conditional short-circuit current  $I_{cc}$  up to 100 kA

**Technology Partner****BARTEC**

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